

A4  
company website search result that includes one or more company website identifiers, such as URLs of company home pages, relevant to the patent classification attribute. End-user station 310 transmits the CWI search query to patent server 330. Patent server applies the CWI search query to website database 334 to generate a company website (CW) search result (430). The CW search result is transmitted to end-user station 310. Search client 314 extracts a company website identifier from the CW search result and abstracts Web document-identifying (WDI) attributes from the patent language portion of the PC-PL search result (435). Search client 314 passes the company website identifier and WDI attributes to search agent 318 (440). Using the company website identifier and well known DNS addressing, search agent 318 contacts the appropriate one of Web hosts 340 and, using well known "Web crawler" techniques, searches the totality of full-text documents published on the associated company website for Web document language relevant to the WDI attributes (445). Upon completion of the search, search agent 318 generates a Web document (WD) search result including Web document identifiers, such as URLs, of relevant Web documents (450). Search agent 318 passes the Web document search result to search client 314 (455). Search client 314 extracts Web document identifiers from the Web document search result (460) and outputs the Web document identifiers on user interface 312. It will be appreciated that the second embodiment described herein has an advantage in that the relevancy of the Internet publications identified is not limited by the quality of the Web document summaries generated by a general-purpose search engine."

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**In the Claims:**

Please amend claims 1, 7, 11, 23, 25 and 27 such that the claims read as follows.

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- A5
1. (Amended) A method for finding patent-relevant documents published on the Internet, comprising the steps of:
    - inputting a patent-identifying attribute on an end-user station;
    - identifying patent data from a first search using the patent-identifying attribute;
    - identifying Internet publication data from a second search using the patent data; and

outputting the Internet publication data on the end-user station,  
wherein the last three steps are performed automatically in response to the first step.

2. The method according to claim 1, wherein the patent data are abstracted prior to identifying the Internet publication data.

3. The method according to claim 1, wherein the sole patent-identifying attribute is an assignee name.

4. The method according to claim 1, wherein the sole patent-identifying attribute is an inventor name.

5. The method according to claim 1, wherein the one or more patent-identifying attributes include a patent number.

6. The method according to claim 1, wherein the Internet publication data include a Uniform Resource Locator (URL).

7. (Amended) A method for locating a plurality of documents published on the Internet relevant to a plurality of attribute-related patents, respectively, comprising the steps of:

inputting a patent-identifying attribute on an end-user station;  
identifying patent data for a plurality of patents from one or more first searches using the patent-identifying attribute;  
identifying Internet publication data for the plurality of patents from one or more second searches using the patent data; and  
outputting the Internet publication data on the end-user station,  
wherein the last three steps are performed automatically in response to the first step.

8. The method according to claim 7, wherein the sole patent-identifying attribute is an assignee name.

9. The method according to claim 7, wherein the sole patent-identifying attribute is an inventor name.

10. The method according to claim 7, wherein the Internet publication data include a plurality of URLs.

11. (Amended) A method for finding a patent-relevant document published on the Internet, comprising the steps of:

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accepting as a computer input a patent-identifying attribute;  
searching a first database using the patent-identifying attribute to locate patent data;  
searching a second database using the patent data to locate Web document data; and  
returning as a computer output the Web document data,  
wherein the last three steps are performed automatically in response to the first step.

12. The method according to claim 11, wherein the sole patent-identifying attribute is an assignee name.

13. The method according to claim 11, wherein the sole patent-identifying attribute is an inventor name.

14. The method according to claim 11, wherein the sole patent-identifying attribute is a patent number.

15. The method according to claim 11, wherein the patent-identifying attributes include a patent number and a patent claim number.

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16. The method according to claim 11, wherein the patent data include patent claim language.

17. The method according to claim 11, wherein the Web document data include a URL.

18. A system for locating an Internet publication relevant to a patent, comprising:  
a computer for accepting an input and returning an output; and  
a plurality of databases;

wherein in response to a patent-identifying attribute accepted as an input the computer initiates searches in the plurality of databases in seriatim to generate Internet publication data returned as an output.

AS 19. The system according to claim 18, wherein the plurality of databases include a patent database and a Web document database.

20. The system according to claim 18, wherein the searches in seriatim include a first search in a patent database and a second search in a Web document database.

21. The system according to claim 18, wherein the Web document database includes Web document summaries.

22. The system according to claim 20, wherein the Web document database includes full-text Web documents.

23. (Amended) A system for finding an Internet publication relevant to a patent, comprising:  
a network; and

a computer having a user interface, for interacting with a user, and a network interface, for interacting with the network;

wherein in response to a patent-identifying attribute input on the user interface the computer interacts with the network in a manner not transparent to the user to locate Internet publications relevant to language in a patent identified from the patent-identifying attribute and to output Internet locations of the respective Internet publications on the user interface.

24. The system according to claim 23, wherein the interaction with the network includes a first search in a patent database and a second search in a Web document database.

25. (Amended) The system according to claim 23, wherein the interaction with the network includes a first search to identify the patent language and a second search to locate the Internet publications.

26. The system according to claim 23, wherein the patent language includes patent claim language.

27. (Amended) The system according to claim 23, wherein the Internet locations include URLs.

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### **REMARKS**

Claims 1-27 are pending in this application.

#### The Amendments to the Abstract and Specification

Applicant has amended the abstract and specification to correct a recurring error in the original application disclosure that would have been obvious to the artisan of ordinary skill. Particularly, Applicant has corrected several erroneous references to search client actions (including linked searches) being conducted "transparent" to the user to correctly reference these actions as being conducted "non-transparent" to the user. The error in the original application disclosure is clear from the more complete description of the subject search client actions that immediately follows the first erroneous reference at page 1, line 24 of the

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specification. The more complete description clearly explains that the subject search client actions are unseen by, that is, non-transparent to the user. The more complete description reads:

From the user's perspective, a patent-identifying attribute, such as an inventor name, assignee name or patent number, input on an end-user station automatically returns Internet publication data, such as Uniform Resource Locators (URLs) of Web documents. The invention thereby allows a user to find patent-relevant publications on the Internet by merely inputting a patent-identifying attribute.

Because the error is obvious, no new matter is presented. Entry of the corrective amendments is therefore appropriate. In re Oda, 443 F.2d 1200, 170 USPQ 268, 272 (C.C.P.A. 1971).

Other amendments to the specification have been made to place the application in better form. Entry of these amendments is also appropriate.

Amendments to the Claims

Applicant has amended claims 1, 7, 11, 23, 25 and 27 to clarify the inventive subject matter. The amended claims find full support in the original specification, claims and drawings. No new matter is presented.

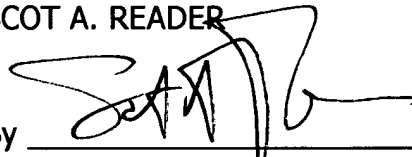
Attached hereto is a marked-up version of the changes made to the abstract, specification and claims by the current amendment. The attached page is captioned **Version with markings to show changes made.**

In view of the foregoing amendments and remarks, Applicant respectfully requests timely examination and an indication of allowance of the pending claims.

Respectfully submitted,

SCOT A. READER

By



Scot A. Reader  
Reg. No. 39,002  
818.788.6503

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**Abstract**

"Automated search technique for discovering patent-relevant publications on the Internet. A search client resident on an end-user station initiates linked searches for patent language and Web documents in a manner [transparent] non-transparent to a user. From the user's perspective, a patent-identifying attribute, such as an inventor name, assignee name or patent number, input on an end-user station automatically returns Web document identifiers, such as Uniform Resource Locators (URLs). The Web document search may be conducted in a database including Web document summaries or in a database including full-text Web documents."

**Specification**

Page 1, fourth full paragraph, beginning at line 20:

"The present invention provides a highly automated search technique for discovering patent-relevant publications on the Internet. The high level of automation may be achieved with the expedient of a search client resident on an end-user station that initiates linked searches for patent data and Internet publication data in a manner [transparent] non-transparent to a user. From the user's perspective, a patent-identifying attribute, such as an inventor name, assignee name or patent number, input on an end-user station automatically returns Internet publication data, such as Uniform Resource Locators (URLs) of Web documents. The Invention thereby allows a user to find patent-relevant publications on the Internet by merely inputting a patent-identifying attribute. A patent-identifying attribute may be a patent family-identifying attribute, such as an inventor name or assignee name. Or a patent-identifying attribute may be a single patent-identifying attribute, such as a patent number. Or a patent-identifying attribute may be a patent claim-identifying attribute, such as a patent claim number. A basic method for finding patent-relevant documents published on the Internet in accordance with the present invention comprises the steps of: inputting a

patent-identifying attribute on an end-user station; identifying patent data from the patent-identifying attribute; identifying Internet publication data from the patent data; and outputting the Internet publication data on the end-user station."

Page 4, first full paragraph, beginning at line 21:

"Fundamental to achievement of a high level of automation in locating patent-relevant publications on the Internet in accordance with the present invention is the search client. In a first embodiment, search client 114, in response to an input by a user on user interface 112 that may include one or more patent-identifying attributes, takes a series of actions [transparent] non-transparent to the user, including initiating linked searches on patent server 130 and search engine 140, to reveal Internet publications relevant to the patent-identifying attributes. Turning now to Figure 2, operation of search client 114 within the communication system shown in Figure 1 to achieve such [transparent] non-transparent functionality is described in even greater detail by reference to a flow diagram. A user of end-user station 110 inputs at least one patent-identifying (PI) attribute on user interface 112 (205). Patent-identifying attributes may include, by way of example, inventor names, assignee names and patent numbers. If a patent number is input as a patent-identifying attribute, it may be desirable to input as a second patent-identifying attribute a patent claim number. By way of example, a user desiring to discover Internet publications relevant to any patent assigned to corporation X may input the single patent-identifying attribute "assignee=corporation X". A user desiring to discover Internet publications relevant to claim 1 of U.S. Patent No. Y may input the plurality of patent-identifying attributes "patent=Y" and "claim=1". Search client 114 forms a patent-identifying search query using the one or more patent-identifying attributes (210). In this regard, search client 114 forms a search query targeted, when applied to patent database 132, to retrieve a patent language search result that includes language from one or more patents that is relevant to the patent-identifying attributes. Relevancy may be expressed in relation to a matching of a patent-identifying attribute with data stored in a corresponding field of an entry within patent database 132. Thus, continuing the second example from above, search client 114 may form a search query that, when applied to patent database 132,



would retrieve language from U.S. Patent No. Y as a result of a match of the patent-identifying attribute element "Y" (from the attribute "patent=Y") with the number "Y" stored in the patent number field of the entry for U.S. Patent No. Y within patent database 132. The patent-identifying search query is transmitted via network interface 116 and network 120 from end-user station 110 to patent server 130 (215). Patent server 130 applies the patent-identifying search query to patent database 132 to generate a patent language (PL) search result. Continuing the second example from above, the patent language search result would include the text of claim 1 of U.S. Patent No. Y. The patent language search result is transmitted via network 120 from patent server 130 to end-user station 110 (225). Search client abstracts Web document-identifying (WDI) attributes from the patent language search result (230) and forms a Web document-identifying search query using the attributes (235). In this regard, search client 114 forms a search query targeted, when applied on search engine 140, to retrieve a Web document search result that includes Web document identifiers, such as URLs, of Web documents having Web document summaries relevant to the Web document-identifying attributes. Relevancy may be expressed in relation to the quality of a match of the Web document-identifying attributes with the Web document summaries stored in entries within Web document database 144. Abstraction of Web document-identifying attributes from the patent language search result may be accomplished by any of numerous algorithms well known in the art. Abstraction may involve, for example, reduction of a full-text patent claim to keywords separated by Boolean operators, which keywords and operators may be selected taking into account the syntactic and lexico-semantic interdependency of the words (i.e. context) of the full-text claim. Alternatively, for a search engine capable of "natural language" searching, minimal or no abstraction may be required. In any case, the Web document-identifying search query is transmitted via network interface 116 and network 120 from end-user station 110 to search engine 140 (240). Search engine 140 applies the Web document-identifying search query to Web document database 144 to generate a Web document (WD) search result (245). The Web document search result is transmitted via network 120 from search engine 140 to end-user station 110 (250). Search client 114 extracts Web document identifiers from the Web document search result (255) and outputs the Web document

identifiers (260) on user interface 112. Of course, if there is more than one patent or patent claim identified in response to a patent-identifying attribute, steps 220 through 260 might be repeated for each identified claim (or independent claim) of each identified patent, resulting in discovery of relevant Web documents for each such claim (or independent claim) of each such patent. Therefore, the present invention may radically improve automation over conventional Internet search techniques by returning to a user Web document identifiers individually tailored for each of a plurality of attribute-related patents (e.g. each patent assigned to company X) and/or patent claims (e.g. each independent [claims] claim in U.S. Patent No. Y) in response to input of a single patent-identifying attribute."

Page 9, first full paragraph, beginning at line 1:

"In a second embodiment, search client 314 in response to an input by a user on user interface 312 that includes one or more patent-identifying attributes, takes a series of actions [transparent] non-transparent to the user, including initiating linked searches on patent server 330 and, in conjunction with search agent 318, on Web hosts 340, to reveal Internet publications relevant to the patent-identifying attributes. Turning now to Figure 4, operation of the search client 314 and search agent 318 within the communication system shown in Figure 3 to achieve such [transparent] non-transparent functionality is described in even greater detail by reference to a flow diagram, wherefrom some transmission steps have been omitted for simplicity. A user of end-user station 310 inputs at least one patent-identifying (PI) attribute on user interface 312 (405). Search client 314 forms a patent-identifying search query using the one or more patent-identifying attributes (410). In this regard, search client 314 forms a search query targeted, when applied to patent database 332, to retrieve a patent classification/ patent language search result that includes pairs of patent classifications and patent language from one or more patents relevant to the one or more patent-identifying attributes. The patent classification may be a U.S. or international patent classification. The patent-identifying search query is transmitted from end-user station 310 to patent server 330. Patent server 330 applies the patent-identifying search query to patent database 332 to generate a patent classification / patent language (PC-PL) search result (415). Patent server

330 transmits the patent classification / patent language search result to end-user station 310.

End-user station 310, particularly search client 314, extracts a patent classification [attribute] (PC) attribute from the classification portion of the PC-PL search result (420) and forms a company website-identifying (CWI) search query using the patent classification attribute (425).

In this regard, end-user station 310 forms a search query targeted, when applied on patent server 330, to retrieve a company website search result that includes one or more company website identifiers, such as URLs of company home pages, relevant to the patent classification attribute. End-user station 310 transmits the CWI search query to patent server 330. Patent server applies the CWI search query to website database 334 to generate a company website (CW) search result (430). The CW search result is transmitted to end-user station 310. Search client 314 extracts a company website identifier from the CW search result and abstracts Web document-identifying (WDI) attributes from the patent language portion of the PC-PL search result (435). Search client 314 passes the company website identifier and WDI attributes to search agent 318 (440). Using the company website identifier and well known DNS addressing, search agent 318 contacts the appropriate one of Web hosts 340 and, using well known "Web crawler" techniques, searches the totality of full-text documents published on the associated company website for Web document language relevant to the WDI attributes (445). Upon completion of the search, search agent 318 generates a Web document (WD) search result including Web document identifiers, such as URLs, of [the] relevant Web documents (450). Search agent 318 passes the Web document search result to search client 314 (455). Search client 314 extracts Web document identifiers from the Web document search result (460) and outputs the Web document identifiers on user interface 312. It will be appreciated that the second embodiment described herein has an advantage in that the relevancy of the Internet publications identified is not limited by the quality of the Web document summaries generated by a general-purpose search engine."

**Claims**

1. (Amended) A method for finding patent-relevant documents published on the Internet, comprising the steps of:

inputting a patent-identifying attribute on an end-user station;  
identifying patent data from a first search using the patent-identifying attribute;  
identifying Internet publication data from a second search using the patent data; and  
outputting the Internet publication data on the end-user station,  
wherein the last three steps are performed automatically in response to the first step.

7. (Amended) A method for locating a plurality of documents published on the Internet relevant to a plurality of attribute-related patents, respectively, comprising the steps of:

inputting a patent-identifying attribute on an end-user station;  
identifying patent data for a plurality of patents from one or more first searches using the patent-identifying attribute;  
identifying Internet publication data for the plurality of patents from one or more second searches using the patent data; and  
outputting the Internet publication data on the end-user station,  
wherein the last three steps are performed automatically in response to the first step.

11. (Amended) A method for finding a patent-relevant document published on the Internet, comprising the steps of:

accepting as a computer input a patent-identifying attribute;  
searching a first database using the patent-identifying attribute to locate patent data;  
searching a second database using the patent data to locate Web document data; and  
returning as a computer output the Web document data,  
wherein the last three steps are performed automatically in response to the first step.

23. (Amended) A system for finding an Internet publication relevant to a patent, comprising:

a network; and

a computer having a user interface, for interacting with a user, and a network interface, for interacting with the network;

wherein in response to a patent-identifying attribute input on the user interface the computer interacts with the network in a manner not transparent to the user to [find a location of an Internet publication] locate Internet publications relevant to [patent language] language in a patent identified from the patent-identifying attribute and to output [the location] Internet locations of the respective Internet publications on the user interface.

25. (Amended) The system according to claim 23, wherein the interaction with the network includes a first search to identify the patent language and a second search to [find the location] locate the Internet publications.

27. (Amended) The system according to claim 23, wherein the [location is a URL] Internet locations include URLs.